

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027405**Date Inspected:** 05-Apr-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**12W PP109.5 W5-DAH (Exterior)**

This QA Inspector randomly observed the Flux Core Arc Welding (FCAW) process in the 1F flat position on the Deck Access Hole (DAH) located at 12W PP109.5 W5 on the exterior of the OBG. ABF welder Salvador Sandoval (ID 2202) was observed cleaning the weld between passes utilizing a small disc grinder and compressed air to blend the start/stop edges for a smooth transition. The welder was observed utilizing E71T-1M Dual Shield 70 Ultra Plus electrodes (wire) and this QA Inspector verified that the electrodes were obtained from a new sealed box. QC Inspector Steve Jensen was observed measuring the inter-pass temperatures by employing an infra-red temperature gun as well as monitoring the welding and the parameters. It was noted that the welder was drawing amperage of 290 with 25.3 volts at a speed of 330mm/min equaling a heat input of 1.33 joules/mm. The welder was observed running multiple pass stringers while adhering to ABF-WPS-D1.5-3010-Revision 1. On a subsequent observation, the welder was observed continuing work on the B-U2a Complete penetration Joint (CJP) and was employing a small disc grinder to grind and blend the edges of the work. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appeared to be in general conformance with the contract specifications.

**12E PP109.5 E5-DAH (Interior)**

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This QA Inspector made random observations of the in process SMAW of the DAH at 9E PP109.5 E5 on the interior of the OBG. ABF welder Khit Lounechany (ID 4895) was observed welding in the 4G overhead position utilizing 3.2mm E7018-H4R electrodes drawing amperage of 127. QC Inspector John Pagliero was observed monitoring the welding and the parameters to ensure compliance to ABF-WPS-D1.5-1010-Revision 1 and measuring the inter-pass temperatures between passes. On a subsequent observation, the welder was observed grinding and blending the edges of the work utilizing a small disc grinder and brushes. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appeared to be in general conformance to the contract specifications.

### Cross Beam 16 (Interior)

This QA Inspector made random observations of FCAW in all positions on hand railing on the interior of crossbeam 16. ABF welder Jeremy Dolman (ID 5042) was observed combining handrails by filling the groove utilizing E71T-11 electrodes in accordance with ABF-WPS-D1.1-D11-2044. QC Inspector Salvador Merino was on hand to monitor the welding and recorded the parameters as 115 amperes at 14 volts. The welder was observed employing a small disc grinder to smooth and blend the work for an aesthetically acceptable appearance. This QA Inspector made subsequent observations and noted that the work is in progress and appeared to be in general conformance with the required WPS.

### 13W PP118.5 W4 (CCO191S1) (Interior)

This QA Inspector randomly observed ABF welder Rory Hogan (ID 3186) perform the ongoing Shielded Metal Arc Welding (SMAW) process in all positions on the 73mm x 160mm schedule 80 pipe located approximately 13W PP118.5 W4 on the interior of the OBG. ABF welding personnel utilized a small disc grinder to smooth the weld and blend it for a visually acceptable condition. QC Inspector Salvador Merino was present to monitor the welding and the parameters as they pertained to ABF-WPS-D1.5-F1200A. Mr. Merino performed a visual (VT) inspection of the work and no rejectable indications were noted. This QA Inspector made subsequent observations to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract documents. It was noted that RFI 2769RO was referenced.

### 13W/14W-A-LS4, 5 and 6 supports (Interior)

This QA Inspector performed an MT Inspection on the Longitudinal Stiffeners (LS) 4, 5 and 6 supports at 13W/14W on the interior of the OBG. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

### Summary of Conversations:

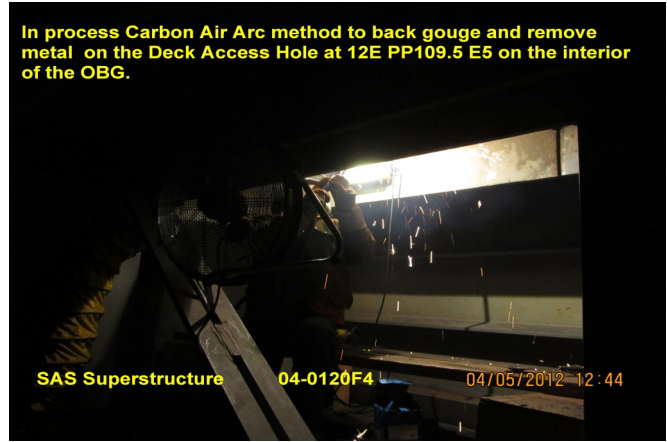
This QA inspector met with QA Inspector Ken Riley to coordinate inspections required and welder assignments.

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## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Frey,Doug	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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